

NEW TECHNOLOGY INFUSES MEDICAL DEVICE MANUFACTURER'S PROCESS FLOW WITH SURGICAL PRECISION

ABOUT PARAGON MEDICAL, INC. Paragon Medical is a tier 1, turnkey supplier of world-class surgical instrument solutions for the medical device marketplace. Headquartered in the "orthopaedic capital of the world," in Pierceton, Indiana, Paragon has 350 employees in offices and production facilities across the United States, Europe and Asia. Dynamic acquisitions have brought some of the industry's most talented craftsmen to the Paragon team, while regional centers of manufacturing excellence allow the company to adapt a wide range of services to support Paragon customers with innovative solutions.

THE CHALLENGE. Paragon Medical's Case & Tray division faced a constant demand to reduce lead times while lowering costs and maintaining quality. The company had participated in ad-hoc projects and localized kaizen improvement events, but the division was still performing below company standards. Paragon reached out to the Purdue Manufacturing Extension Partnership, part of the MEP National Network™, for assistance in implementing a system that could meet their customer's expectations.

MEP CENTER'S ROLE. Purdue introduced Paragon Medical to Simio Simulation modeling to help the company construct better processing paths and layouts in the shop floor plan. They focused primarily on identifying bottlenecks, rationalizing head count, and reviewing the overall product flow. Purdue created a layout and process flow model for the Case & Tray division and used a PowerPoint presentation to show the throughput and bottlenecks in the process, along with potential solutions. The model could be adjusted to test various proposed solutions for process change improvements, giving Paragon an opportunity identify potential risks prior to full implementation.

Using Purdue's model, Paragon identified three bottleneck areas and examined options for eliminating them. The company changed two process flows to improve productivity and increase efficiency. The changes were so effective that Paragon decided to purchase the Simio simulation software to retain and redeploy the benefits of the project.

"This partnership with Purdue was much more than an academic exercise. The team engaged in a way that showed their desire to challenge and help Paragon improve our business and operational practices, as is evident in the results realized."

-Sean Miller, Director of Operations – Case & Tray Division

RESULTS



Realized a **5%** increase in efficiency, which is anticipated to grow to 15%



Identified **3** bottlenecks in the process



Changed **2** process flows to improve productivity



Invested in simulation software

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